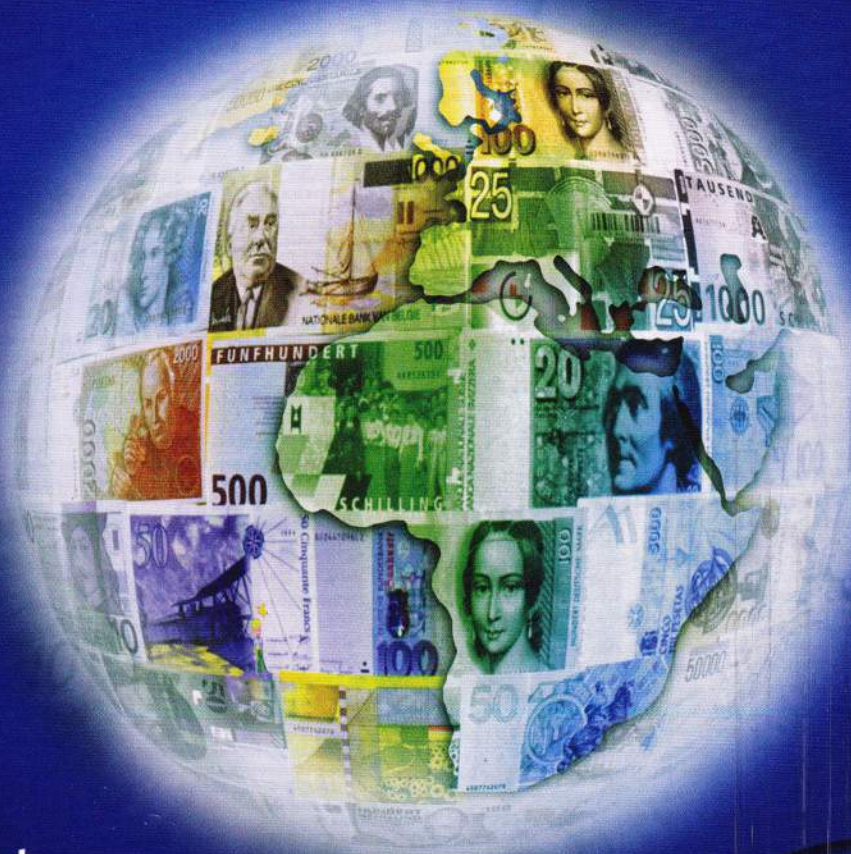


IB DIPLOMA PROGRAMME

# Economics

COURSE COMPANION



Jocelyn Blink  
Ian Dorton

SECOND  
EDITION

OXFORD





# OXFORD

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### Dedication

We would like to thank our current and past Subject Area Managers Fraser Lawrence, Chris Mannix and Alison Doogan. We would also like to thank Gareth Rees, for putting on the hat that he could finally wear. We remember fondly our friend Tony Halsall.

We dedicate this book to all the 'economics geeks' whom we have taught over many years and to our children Niki, Caroline, Ben and Nick.

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# Course Companion definition

The IB Diploma Programme Course Companions are resource materials designed to support students throughout their two-year Diploma Programme course of study in a particular subject. They will help students gain an understanding of what is expected from the study of an IB Diploma Programme subject while presenting content in a way that illustrates the purpose and aims of the IB. They reflect the philosophy and approach of the IB and encourage a deep understanding of each subject by making connections to wider issues and providing opportunities for critical thinking.

The books mirror the IB philosophy of viewing the curriculum in terms of a whole-course approach; the use of a wide range of resources, international mindedness, the IB learner profile and the IB Diploma Programme core requirements, theory of knowledge, the extended essay, and creativity, action, service (CAS).

Each book can be used in conjunction with other materials and indeed, students of the IB are required and encouraged to draw conclusions from a variety of resources. Suggestions for additional and further reading are given in each book and suggestions for how to extend research are provided.

In addition, the Course Companions provide advice and guidance on the specific course assessment requirements and on academic honesty protocol. They are distinctive and authoritative without being prescriptive.



## IBO mission statement

The International Baccalaureate Organization aims to develop inquiring, knowledgeable, and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the IBO works with schools, governments, and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate, and lifelong learners who understand that other people, with their differences, can also be right.



# The IB learner profile

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world. IB learners strive to be:

**Inquirers** They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.

**Knowledgeable** They explore concepts, ideas, and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.

**Thinkers** They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.

**Communicators** They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.

**Principled** They act with integrity and honesty, with a strong sense of fairness, justice, and respect for the dignity of the individual, groups, and communities. They take responsibility for their own actions and the consequences that accompany them.

**Open-minded** They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values, and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.

**Caring** They show empathy, compassion, and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.

**Risk-takers** They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas, and strategies. They are brave and articulate in defending their beliefs.

**Balanced** They understand the importance of intellectual, physical, and emotional balance to achieve personal well-being for themselves and others.

**Reflective** They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.





# A note on academic honesty

It is of vital importance to acknowledge and appropriately credit the owners of information when that information is used in your work. After all, owners of ideas (intellectual property) have property rights. To have an authentic piece of work, it must be based on your individual and original ideas with the work of others fully acknowledged. Therefore, all assignments, written or oral, completed for assessment must use your own language and expression. Where sources are used or referred to, whether in the form of direct quotation or paraphrase, such sources must be appropriately acknowledged.

## How do I acknowledge the work of others?

The way that you acknowledge that you have used the ideas of other people is through the use of footnotes and bibliographies.

**Footnotes** (placed at the bottom of a page) or endnotes (placed at the end of a document) are to be provided when you quote or paraphrase from another document, or closely summarize the information provided in another document. You do not need to provide a footnote for information that is part of a 'body of knowledge'. That is, definitions do not need to be footnoted as they are part of the assumed knowledge.

**Bibliographies** should include a formal list of the resources that you used in your work. 'Formal' means that you should use one of the several accepted forms of presentation. This usually involves separating the resources that you use into different categories (e.g. books, magazines, newspaper articles, Internet-based resources, CDs, and works of art) and providing full information as to how a reader or viewer of your work can find the same information. A bibliography is compulsory in the extended essay.

## What constitutes malpractice?

Malpractice is behaviour that results in, or may result in, you or any student gaining an unfair advantage in one or more assessment component. Malpractice includes plagiarism and collusion.

**Plagiarism** is defined as the representation of the ideas or work of another person as your own. The following are some of the ways to avoid plagiarism:

- words and ideas of another person to support one's arguments must be acknowledged
- passages that are quoted verbatim must be enclosed within quotation marks and acknowledged
- CD-ROMs, email messages, web sites on the Internet, and any other electronic media must be treated in the same way as books and journals
- the sources of all photographs, maps, illustrations, computer programs, data, graphs, audio-visual, and similar material must be acknowledged if they are not your own work
- copying works of art, whether music, film, dance, theatre arts, or visual arts, and where the creative use of a part of a work takes place, must be acknowledged.

**Collusion** is defined as supporting malpractice by another student. This includes:

- allowing your work to be copied or submitted for assessment by another student
- duplicating work for different assessment components and/or diploma requirements.

**Other forms of malpractice** include any action that gives you an unfair advantage or affects the results of another student. Examples include, taking unauthorized material into an examination room, misconduct during an examination, and falsifying a CAS record.

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# Introduction

This book is designed to be a companion to you as you embark upon your study of the International Baccalaureate Diploma Programme in economics. Through its overarching emphasis on international economics and development economics, we hope that it will help you become, in the words of the IB learner profile, “internationally-minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world”.

Economics has a vital role to play in promoting international cooperation and mutual understanding because of its focus on global issues. To achieve this understanding, you need to learn to consider economic theories, ideas, and events from the points of view of different stakeholders in the world economy.

The Course Companion has been designed to facilitate this process in a number of ways.

- The study of the subject at both standard and higher level is encompassed and there is a focus toward the IB learner profile and international-mindedness. You will discover that many economic concepts and issues are closely linked to other disciplines, such as history, sociology, geography, and environmental studies.
- Opportunities are provided to learn and practise the skills of evaluation and synthesis – key skills needed to become an informed student of economics. As you expand your knowledge of economics and gain the ability to evaluate these ideas you will develop a balanced view of alternative viewpoints and become critical thinkers.
- The *Student workpoints* and *Country investigations* are intended to help you improve your research skills and gain a wider knowledge of the world.
- The importance of Theory of Knowledge (TOK) is emphasized, a core element of the IB Diploma Programme model. This will help you to understand that TOK exists in and applies to economics as it does in all academic areas.

You will learn that economics is based on the collection of empirical evidence and the development of models which may differ, depending on the assumptions upon which they are based. You will also become aware of the inherent biases in economics and that there are conflicting schools of thought within the discipline.

- *You be the journalist* is a feature designed to encourage you to write about economics in a creative way. In this role-playing exercise you will write in a journalistic style rather than the usual essay style. This will encourage you to be open to the perspectives of different stakeholders.
- Opportunities are created to discuss ethical issues, such as the causes and consequences of environmental damage, or the advantages and disadvantages of multinational investment in developing countries.
- There are biographies of several famous economists, which bring to light the fact that economic theory is devised by real people, people not unlike you.
- A number of data response exercises are included that are modelled on the final IB examination. Each exercise comprises a brief case study of economics in the real world.
- Sample examination questions and/or review questions are included at the end of each chapter. These include samples of the Paper 1, part (a) essay questions that are worth 10 marks, complete Paper 1 essay questions comprised of two parts, and Paper 2 data response questions. There are also samples of the Higher Level paper 3 questions. Throughout the companion, there is assessment advice for both internal and external assessment.
- There is a valuable final chapter containing advice on internal assessment, examination technique, and extended essay writing. Tips on examination technique are also scattered through the Course Companion.

The order of topics in this companion is not **exactly** as it appears in the IB syllabus. In a few places, the topics have been rearranged so that the concepts are presented where they are most useful. Economics is, by nature, a dynamic subject. As a result, theories evolve and change, and new theories are introduced to explain new evidence. It is not expected that you will rely entirely on this one Course Companion as your only resource. To benefit fully from an economics course at any level, you should draw on a variety of resources and approaches.

Jocelyn Blink and Ian Dorton  
December 2010



# The foundations of economics

By the end of this chapter, you should be able to:

- define, and give examples of, a social science
- define, give examples of, and distinguish between, goods and services; needs and wants; economic goods and free goods
- define opportunity cost and understand its link to relative scarcity and choice
- explain the basic economic questions: "What to produce?", "How to produce?", and "How much to produce?"
- describe the factors of production
- explain, illustrate, and analyse production possibility curves
- distinguish between microeconomics and macroeconomics; positive economics and normative economics; private sector and public sector
- explain that economists are model builders and that they employ the assumption of "*ceteris paribus*"
- explain and illustrate a basic model of an economy
- distinguish between different rationing systems
- compare and contrast the advantages and disadvantages of planned and free market economies
- distinguish between economic growth and economic development
- define sustainable development.

## Adam Smith (1723–1790)

Often known as the "father of modern economics", Adam Smith was a Scotsman and wrote one of the first and most important books on the subject of economics, *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776). It is no coincidence that the book was written during the beginning of the Industrial Revolution in Great Britain. This was the first period in which a country experienced industrialization. Prior to this economies had been fairly simple, agricultural systems, with most people involved in producing basic products, such as food and cloth, and just a few providing other necessities, such as farming equipment and leather goods. The coming of the steam engine, increased use of machinery, the emergence of banks for investment, and the birth of the stock exchange made everything much more complex and in need of explanation.

Smith believed in the "free market". The free market is one where consumers may buy what they like and producers may produce what they like, with no government interference. Smith proposed that if everyone followed his or her own best interests, with as little state

intervention as possible, then the public interest would be well served. He suggested that a laissez-faire (don't interfere) approach should be followed, leaving consumers and producers to make their own decisions and thus gaining maximum benefit for all from the market system. He believed that the "invisible hand" of competition would result in the most efficient outcome. He did not, however, advocate complete freedom and, among other things, he identified possible problems relating to firms coming together and exploiting consumers. He also suggested that there might be problems if firms grew too large and so were able to dominate the market.

For the next 150 years the theories that originated with Adam Smith formed the basis of "classical economics". The overriding faith in the power of free markets to allocate resources efficiently was the orthodox (widely accepted) view of the time.





Economics is a social science, which is a study of people in society and how they interact with each other. Other social sciences include sociology, political science, psychology, anthropology, and history.

The Earth is, to all intent and purposes, finite. This means that we only have a finite amount of resources. We use these resources to produce the goods and services that we need or want, so the quantity of goods and services available is also finite. Goods are physical objects that are capable of being touched (tangible), such as vegetables, meat, or motorcars. Services are intangible things that cannot be touched, such as motorcycle repairs, haircuts, or insurance.

Human needs and wants are infinite. Needs are things that we must have to survive, such as food, shelter, and clothing. Wants are things that we would like to have but which are not necessary for our immediate physical survival, such as televisions and mobile phones.

There is a conflict between the finite resources available and infinite needs and wants. People cannot have everything that they desire and so there must be some system for rationing the scarce resources. This is where economics comes in.

Economics is a study of rationing systems. It is the study of how scarce resources are allocated to fulfill the infinite wants of consumers.

## Scarcity

To the economist, all goods and services that have a price are relatively scarce. This means that they are scarce relative to people's demand for them. It may seem that, in your town or city, cars are not scarce as there are a great number of them around. However, it is certain that not everyone who would like a car in your area has one, usually because they cannot afford to buy a car. Their ability to purchase a car is affected by the amount of money they have and the price of the car, so price is being used to ration the cars that are available. Any good or service that has a price, and is thus being rationed, is known as an economic good.

The term "scarcity" has a particular meaning in economics that is different from the way that the word is used in everyday life. A normal person would not say that cars were scarce in Mexico City, but an economist would be happy to state that they were relatively scarce.

## Choice

Since people do not have infinite incomes, they need to make choices whenever they purchase goods and services. They have to decide how to allocate their limited financial resources and so always need to choose between alternatives. This leads to one of the key concepts of economics.

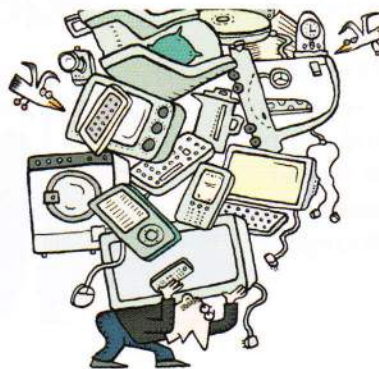
## Opportunity cost

Opportunity cost is defined as *the next best alternative foregone when an economic decision is made*. This may sound quite complicated but simply



### Student worksheet 1.1

- 1 Make a list of your own needs.
- 2 Make a list of the needs that your grandparents may have had. Explain the reason for any differences that you have suggested between your lists for questions 1 and 2.
- 3 Make a list of the needs of a person the same age as you, living in another continent. Explain the reason for any differences that you have suggested.





means that opportunity cost is what you give up in order to have something else. For example, if you decide to buy a DVD for \$15 rather than have a meal out, then the opportunity cost of the DVD is the meal out that you go without. It is not the \$15, as opportunity cost is never expressed in monetary terms.

If a good or service has an opportunity cost then it must be relatively scarce, so it will have a price and be classified as an “economic good”.

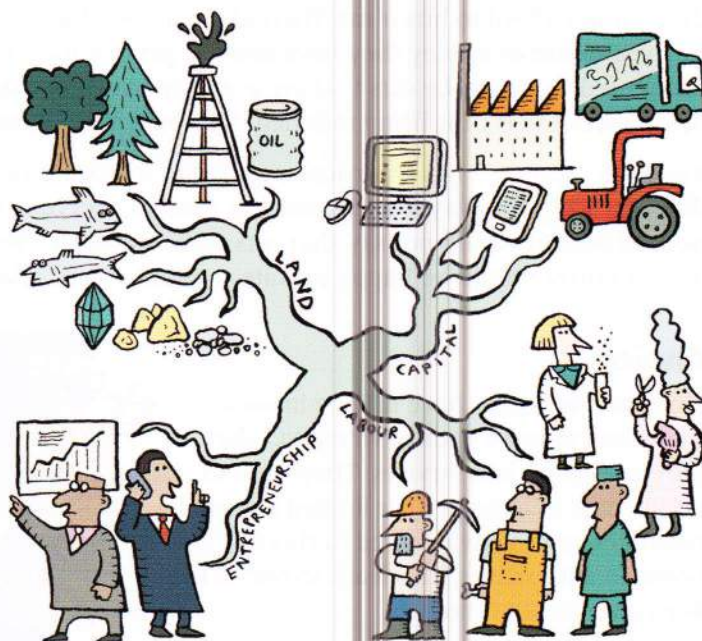
There are a few things, such as air and salt water, that are not limited in supply and so do not have an opportunity cost when they are consumed. We do not have to give up something else in order to breathe. These things are known as “free goods”, as they are not relatively scarce and so will not have a price.

## The basic economic problem

We have already seen that resources are relatively scarce and wants are infinite, which leads to choices to be made. These choices are often expressed in terms of three questions and represent the basic economic problem. The questions are:

- What should be produced and in what quantities? Using these scarce resources, how many computers should be produced, how many bicycles, how much wheat, and how much milk? This has to be decided for all economic goods.
- How should things be produced? There are many different ways of producing things and there are different combinations of resources that may be used in production. Should sports shoes be produced by an automated production line or by manual workers? Should crops be grown with a high usage of fertilizer or organically?
- Who should things be produced for? Should they go to those who can afford them or be shared out in some “fair” manner? How will the total income (the national income) of the economy be distributed? Will teachers get higher incomes than nurses?

Whatever the system used to allocate resources, it needs to be able to answer these questions. There are two theoretical allocation (rationing) systems—the free market system and the planned economy. In reality, all economies are mixed economies, which are a combination of the free market and planning. The extent to which governments should intervene in any economy is a constant source of debate and will be addressed throughout this companion.





## Factors of production

There are four resources that allow an economy to produce its output. These are known as factors of production.

### Land

Land includes a large number of things. It is the land; everything that grows on the land or is found under it; the sea; and everything that is found in and under the sea. It therefore includes all natural resources. Some are basic raw materials, such as gold, coal, oil, and natural gas, and some are cultivated products, such as wheat, rice, and pineapples. Some natural resources are renewable, including all cultivated products, and some are non-renewable, including all fossil fuels like oil.

### Labour

Labour is the human factor. It is the physical and mental contribution of the existing workforce to production.

### Capital

Capital is the factor of production that comes from investment in physical capital and human capital. Physical capital is the stock of manufactured resources, such as factories, machinery, roads, and tools, that is used to produce goods and services in the economy. Human capital is the value of the workforce. Investment in human capital through education or improved health care may be a significant contributor to economic growth. Infrastructure (social overhead capital) is the large-scale public systems, services, and facilities of a country that are necessary for economic activity. This includes the stock of a nation's roads, railways, hospitals, schools, ports, airports, electricity plants, water plants, and telecommunications. These have been accumulated through investment, usually by the government. Improving infrastructure may lead to improved economic growth and development.

### Management (entrepreneurship)

Management is the organising and risk-taking factor of production. Entrepreneurs organise the other factors of production—land, labour, and capital—to produce goods and services. They also use their personal money and the money of other investors to buy the factors of production, produce the goods and services, and, hopefully, make a profit. As a profit is never guaranteed and investment may be lost, this is the risk-taking part of the role of the entrepreneur.

## Production possibilities curves (production possibilities frontiers)

These are used by economists to show the concepts of scarcity, choice, and opportunity cost, among other things. A production possibilities curve (PPC) shows the maximum combinations of goods and services that can be produced by an economy in a given time period, if all the resources in the economy are being used fully and efficiently and the state of technology is fixed. This is known as potential output. An example of a PPC is shown in Figure 1.1, where only two things are being produced—schools and motorcars.



If all production is devoted to building schools, at point Y, then quantity Y of schools will be produced and no motorcars. Point X, at the other end of the PPC, shows the situation where no schools are being built, only motorcars. At point Z resources are being shared between the production of motorcars and the building of schools. The points on the PPC show the possible combinations of school building and motorcar production. As you can see, it is impossible to build more schools without also producing fewer motorcars. The opportunity cost of more schools is the number of motorcars that are not produced.

The PPC is a curve because not all of the factors of production used to build schools and produce motorcars are equally good at both occupations. As we move towards point X, where few schools are being built, it is unlikely that the workers who usually build schools will be as productive as the workers who usually produce cars. In the same way, as point Y is approached, car workers will have to be involved in building schools and are unlikely to be as productive as the normal school builders. At point Z, the skilled workers in each industry will be specializing in the production at which they are best and so both sets of workers will be at their most productive.

It is possible to produce at any point inside the PPC, but it means that not all of the factors of production in the economy are being used or that they are being used inefficiently. In reality, economies are always producing within their PPCs, since there are always some unemployed factors of production in a country. For example, there is not a single economy in the world where the entire potential workforce is actually working at any given time—there will always be some unemployment in an economy.

Point V is inside the PPC and represents a combination of actual output. If there is a movement from point V towards the PPC, for example to point W, then we say that there has been actual growth.

The point  $Z_1$  is unattainable for an economy as it is outside the PPC. It could only be achieved if the PPC itself moved outwards. For example, if the PPC moved from YX to  $Y_1X_1$ , then the point  $Z_1$  would be achievable. Any point on the PPC shows potential output, for example point Z. A PPC movement from YX to  $Y_1X_1$  represents an increase in potential output and so a movement from Z to  $Z_1$  would be potential growth.

An outward shift of the PPC can only be achieved if there is an improvement in the quantity and/or quality of factors of production. If this shift is achieved, there is an increase in potential output but this does not necessarily mean that there is an increase in actual output. That would require a movement of the current point of actual output towards the new PPC.

A fall in the quantity of factors of production would cause the PPC to shift inwards. This might be due to war or natural disasters.

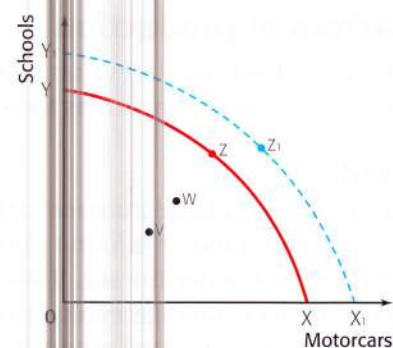


Figure 1.1 A production possibilities curve



## Utility

Utility is a measure of usefulness and pleasure. It gives an idea of how much usefulness or pleasure a consumer receives when they consume a product. The two basic ways of measuring utility are total utility and marginal utility. Total utility is the total satisfaction gained from consuming a certain quantity of a product. If a person eats five ice creams the total utility would be a measure of the total pleasure gained from eating all of the ice creams. Marginal utility is the extra utility gained from consuming one more unit of a product. We could measure the extra utility that the consumer gains from each of the five ice creams consumed. It is believed that, in the majority of cases, the marginal utility gained from extra units of a product falls as consumption increases. If a person continues to eat ice cream after ice cream, the pleasure derived from each extra one will start to fall until, if the person continues eating for too long, they are sick and a disutility occurs with marginal utility becoming negative.

## Theory of Knowledge

### Social sciences

We have said that economics is a social science, a study of people in society and how they interact with each other. One of the important questions posed in TOK is whether or not it is possible to use a scientific approach effectively in a subject that deals with human beings. Noam Chomsky, the philosopher, has no doubts. He said in a television interview, "As soon as questions of will or decision or reason or choice of action arise, human science is at a loss."

There are a number of reasons why it is very difficult, if not impossible, to apply a scientific approach to the social (or human) sciences.

- Human beings are unique; they are all individuals, so there are no general laws that can be applied to them. They do not behave in a fully consistent manner.
- Social scientists are themselves human and so they are a part of the experiment that they are studying. It must be very difficult for them to suppress any bias that they may have, thus making any results open to question.
- Both objective and subjective concepts exist in social sciences and we know that subjective

concepts are matters of opinion and so incapable of truly accurate scientific study.

- It is very difficult to measure data in the social sciences in numerical terms. How do we measure parental control or the satisfaction gained from eating a bar of chocolate?
  - Predictions that are 100% certain are impossible to make in the social sciences.
  - Social sciences are subjects where factors are always changing and so nothing is really constant. This makes measurement difficult and true prediction debatable.
- 1 Look at each of these reasons and consider whether the same problems do not exist, to some extent, in the natural sciences. Try to use examples to support your views.
  - 2 "It is possible that the social sciences are in their infancy and that, just as with the natural sciences, they will become more dependable and accurate in their findings and predictions with time." Do you agree with this statement?

Economics is a large subject area and so, to make things simpler, it is often split up into different sections. There are a number of ways of doing this.

## Microeconomics and macroeconomics

Microeconomics deals with smaller, discrete economic agents and their reactions to changing events. For example, it looks at individual consumers and how they make their decisions about demand and



expenditure; individual firms and how they make decisions, such as what to produce and how much; and individual industries and how they may be affected by such things as government action.

Macroeconomics takes a wider view and considers such things as measuring all the economic activity in the economy, inflation, unemployment, and the distribution of income in the whole economy.

## Positive economics and normative economics

A positive statement is one that may be proven to be right or wrong by looking at the facts. For example, “The unemployment rate for China for 2009 was 4.2%”. A normative statement is a matter of opinion and cannot be conclusively proven to be right or wrong. It is usually easy to spot because it uses value-judgment words such as “ought”, “should”, “too much”, and “too little”. For example, “The Chinese government put too little emphasis on curing rural unemployment in 2009”.

Positive economics deals with areas of the subject that are capable of being proven to be correct or not. Normative economics deals with areas of the subject that are open to personal opinion and belief. While it is easier to be confident in matters of positive economics, it is often more interesting to deal with questions in normative economics, even though a conclusive outcome is very unlikely.

For example, many economists have put forward theories to suggest exactly why economies tend to move from periods of high economic activity to periods of depressed activity, but no one has been able to do so completely—they are all opinions. Indeed, it is often said that if 10 economists are locked in a room, they will come out with 12 conclusions!

## Economists and model building

Economists, like all social scientists, tend to build theoretical models in order to test and illustrate their theories. These models may then be manipulated in order to see what the outcome will be if there is a change in one of the variables. This method of holding all but one of the variables constant is known as *ceteris paribus*. In Latin, this literally means “all other things being equal”. When economists want to test the effect of one variable on another they need to be able to isolate the effect of the one variable by assuming that there is no change in any of the other variables. For example, if they want to know how a change in wages will affect people’s desire to work, they have to assume that there is no change in another variable, such as taxes. Economists are very famous for making assumptions, and it is always important to be aware of such assumptions.

To illustrate the idea of model building, look at the simple model of an economy in Figure 1.2. It is known as a circular flow model.

### Theory of Knowledge

- 1 How reliable is the statistic that China’s unemployment rate in 2009 was 4.2%?
- 2 How do economists “know” what is true?



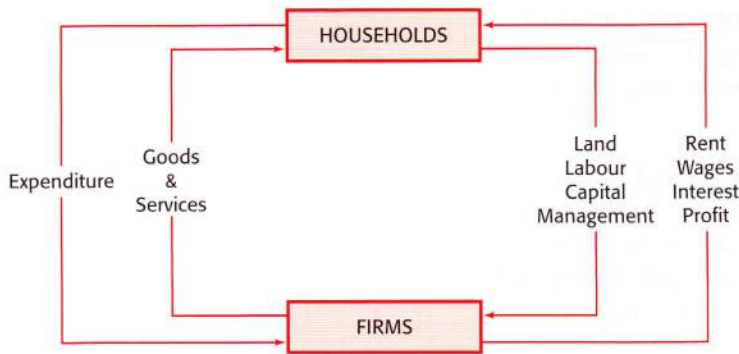


Figure 1.2 The circular flow of income

In the model, households represent the groups of individuals in the economy who perform two functions. They are the consumers of goods and services and they are the owners and providers of the factors of production that are used to make the goods and services. Firms represent the productive units in the economy that turn the factors of production into goods and services. This sector is known as the private sector. This is the part of production in the economy that is owned by private individuals.

Goods are tangible products. They may be split into durable goods which are consumed over time, such as cars and washing machines, and non-durable goods which are consumed over a short period of time, such as an ice cream or a bottle of mineral water.

Services are intangible products, such as a haircut or insurance, and, again, may be consumed immediately or over time.

This simple model ignores two other important sectors of the economy: the government and international trade. (The model will be developed more fully in Chapter 13.) The government has a number of roles in the economy. It is normally responsible for law and order, national defence, adjusting the economy in order to achieve agreed economic aims, and directly providing certain goods and services, which might include things such as water, public transport, electricity, or even cigarettes in some economies. The state-owned sector of the economy that provides goods and services is known as the public sector.

## Rationing systems: planned economies versus free market economies

Economics is a study of rationing systems. Since the resources in an economy are relatively scarce, there must be some way of rationing those resources and the goods and services that are produced by them.

In theory, there are two main rationing systems.

- 1 **Planned economies:** In a planned economy, sometimes called a centrally planned economy or a command economy, decisions as to what to produce, how to produce, and who to produce for, are made by a central body, the government. All resources are

### Theory of Knowledge

#### Rational Economic Thinking

In spite of the difficulty that economists face in devising valid economic models this is still their task. In order to establish economic models economists make assumptions about the way that people will behave. One important assumption that economists make is that humans behave rationally. That is, consumers will seek to maximise their utility and producers will seek to maximise their profits. The behaviour of consumers and producers is then examined in the context of these assumptions. Even if some individuals may not necessarily behave in a rational manner the assumptions can usually be made for large groups of people. They therefore make it possible for economists to make predictions about patterns of economic behaviour.



collectively owned. Government bodies arrange all production, set wages, and set prices through central planning. Decisions are made by the government on behalf of the people and, in theory, in their best interests.

The quantity of decisions to be made, data to be analysed, and factors of production to be allocated are immense. This makes central planning very difficult. If one then adds the need to forecast future events accurately in order to plan ahead, the task becomes almost impossible to achieve with any decent level of efficiency.

In the 1980s, almost one third of the population of the world lived in planned economies, mainly in the USSR and China. These days, with the changes in Eastern Europe that have taken place, there are very few countries that rely solely on planning. Also, in China, which operates a predominantly planned system, elements of the free market are becoming very common and are, indeed, being encouraged in many market segments, such as textiles and clothing.

- 2 *Free market economies:* In a free market economy, sometimes called a private enterprise economy or capitalism, prices are used to ration goods and services. All production is in private hands and demand and supply are left free to set wages and prices in the economy. The economy should work relatively efficiently and there should be few cases of surpluses and shortages.

Individuals make independent decisions about what products they would like to purchase at given prices and producers then make decisions about whether they are prepared to provide those products. The producers' decisions are based upon the likelihood of profits being made. If there are changes in the pattern of demand, then there will be changes in the pattern of supply in order to meet the new demand pattern. For example, let us assume that producers have been making both roller skates and skateboards and find that they are equally profitable in the quantities currently supplied. Now assume that tastes change and skateboards are seen to be more "cool". There will be an increased demand for skateboards and a fall in the demand for roller skates. Shops will experience a shortage of skateboards to sell and a surplus of roller skates that are not being sold. In order to rectify this, they will raise the price of skateboards, reducing the quantity demanded, and lower the price of roller skates in order to clear the surplus. Producers, whose costs have not changed, will realise that there is now more profit to be made in producing skateboards than there is in producing roller skates and will increase their production of skateboards and reduce their production of roller skates. Resources will be moved from producing roller skates to producing skateboards. Thus we can see that a change in the demand of consumers sends "signals" that bring about a chain of

### DID YOU KNOW?

As a result of planning problems and an emphasis on industrial production, there were chronic shortages of consumer goods in the Soviet Union and queues were a part of daily life. It is estimated that a Russian woman would spend two hours every day lining up to buy essential goods.



events that re-allocates factors of production and makes sure that the wishes of the consumers are met. The free market system is a self-righting system.

When consumers and producers work to their own best interest, the market functions to produce the “best” outcome for both. As Adam Smith said, “Every individual...generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it...he intends only his own gain, and he is in this...led by an invisible hand to promote an end which was no part of his intention.” This is often used as a justification for arguing that there should be minimal government interference in the economy.

In a market economy, it is said that resources will be allocated efficiently. However, sometimes it takes a long time for resources to be re-allocated from the production of one good or service to another. This is likely to create negative consequences for the stakeholders involved.

In reality, all economies are mixed economies. What is different is the degree of the mix from country to country. Some countries, such as China, have high levels of planning and government involvement in the economy. Even in the seemingly free economies, such as the USA, the UK, or even Hong Kong, government intervention is very much a part of the economic system. Government involvement is deemed essential, since there are some dangers that will exist if the free market is left to operate without interference. Some of the disadvantages of pure free markets and planning are shown in Table 1.1.



**“Making a profit was a lot easier before so many countries abandoned socialism and started competing!”**

Disadvantages of pure free markets	Disadvantages of planning
1 Demerit goods (things that are bad for people, such as drugs or child prostitution) will be over-provided, driven by high prices and thus a high profit motive.	1 Total production, investment, trade, and consumption, even in a small economy, are too complicated to plan efficiently and there will be misallocation of resources, shortages, and surpluses.
2 Merit goods (things that are good for people, such as education or health care) will be underprovided, since they will only be produced for those who can afford them and not for all.	2 Because there is no price system in operation, resources will not be used efficiently. Arbitrary decisions will not be able to make the best use of resources.
3 Resources may be used up too quickly and the environment may be damaged by pollution, as firms seek to make high profits and to minimize costs.	3 Incentives tend to be distorted. Workers with guaranteed employment and managers who gain no share of profits are difficult to motivate. Output and/or quality will suffer.
4 Some members of society will not be able to look after themselves, such as orphans, the sick, and the long-term unemployed, and will not survive.	4 The dominance of the government may lead to a loss of personal liberty and freedom of choice.
5 Large firms may grow and dominate industries, leading to high prices, a loss of efficiency, and excessive power.	5 Governments may not share the same aims as the majority of the population and yet, by power, may implement plans that are not popular, or are even corrupt.

**Table 1.1** Disadvantages of pure free markets and planning



**Karl Marx (1818–1883)**

Best known not as an economist or philosopher but as a revolutionary communist, Karl Marx's works inspired the foundation of many communist regimes in the twentieth century. He had a massive influence upon the shape of the world in that century. Although he was originally trained as a philosopher, Marx eventually turned more towards economics and politics. He attempted to prove his theories using mathematics. He felt that this was important, since he said that his book, *Das Kapital*, was not a descriptive work but a "scientific description" of the course that history would take.

Marx saw "capitalism", the free market system, as being only one of a series of methods of production. Marx predicted that there would be an inevitable breakdown of capitalism, for economic reasons, and that communism would be the natural end result. He issued the rallying cry, "Workers of the world unite. You have nothing to lose but your chains!"



Marx predicted that, eventually, society's ability to produce would grow faster than its ability to consume, causing growing unemployment. Thus the free market could not be depended upon to serve the best interests of workers and there would be a need for the government to take over the means of production, in a system known as communism.

Although his ideas are still influential it could be argued that in the twenty-first century, the movement towards free markets and away from planning in many of the former communist countries suggests that the days of Marxism are numbered. Clearly the desirability of such a situation is very much a subjective question.

**Economic growth**

National income is the value of all the goods and services produced in an economy in a given time period, normally one year.

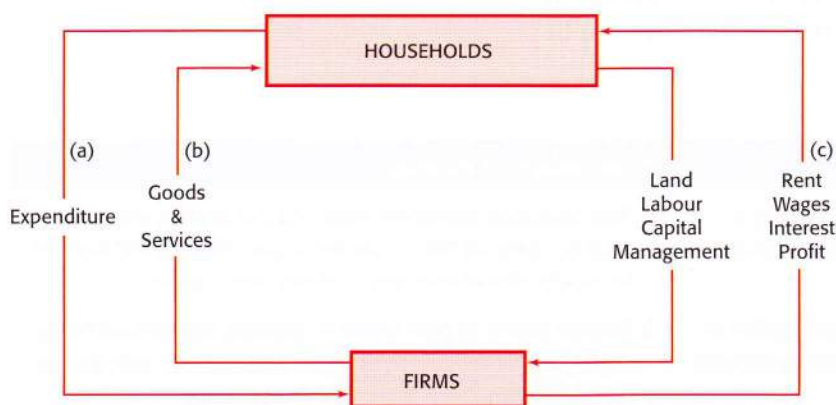


Figure 1.3 The different methods of measuring national income

National income can be measured by adding up all the activity along any one of the three routes, (a), (b), or (c), in the model in Figure 1.3. Thus it can be measured by looking at the value of the output of the goods and services (b), or the expenditure on the goods and services (a), or the total incomes of the households for letting the firms use their factors of production (c). It is too difficult to measure the value of the factors of production used, so that method is not attempted.

In order not to overstate the value, any increase caused by rising prices (inflation) is ignored and the national income after this has



been done is known as real national income. The term “real”, in economics, simply means having allowed for the effects of inflation.

If there is an increase in the level of real national income between one year and another, then we could say that the economy has grown. However, if the population has grown by the same percentage, then income per head of the population will not have grown. Thus, in order to be accurate, we measure increases in real national income per capita (per head). This measure of the increase in economic activity is known as economic growth.

Because it is purely a money measurement and an average, economic growth does not tell us very much about the actual welfare of the people in a country. A country’s economy may grow because the military armaments sector grows, but this does not mean that the average person is better off. We will look at national income in much greater detail in Chapter 13.

We learned earlier that an increase in potential output does not necessarily mean that there is an increase in actual output. Economic growth is an increase in actual output, a movement from a point inside the production possibilities curve to a point that is nearer to the curve.

The measurement of economic growth is simply a measurement of the change in a country’s national output, or Gross Domestic Product (GDP). This may also be referred to as Gross National Income (GNI).

## Economic development

Unlike economic growth, economic development is a measure of welfare, a measure of well-being. It is usual to measure economic development not just in monetary terms such as GDP but also in terms of other indicators, such as education indicators, health indicators, and social indicators.

For example, the Human Development Index (HDI), one of the most commonly used development measures, weighs up real national income per head, the adult literacy rate, the average years of schooling, and life expectancy in ranking the countries of the world in terms of “development”.

The HDI is calculated for a country and then gives the country an HDI value between zero and one. The nearer the value is to one, the more developed the country is said to be. A country with a value above 0.9 is said to have “very high human development”, countries with values between 0.8 and 0.9 are said to have “high human development”, countries with values from 0.5 to 0.8 are said to have “medium human development”, and countries with values below 0.5 are said to have “low human development”. An example of HDI values for a selection of different countries in 2007 is shown in Table 1.2.



HDI rank	Country	HDI value	Category
1	Norway	0.971	Very high human development
23	Singapore	0.944	Very high human development
38	Malta	0.902	Very high human development
39	Bahrain	0.895	High human development
66	Malaysia	0.829	High human development
83	Lebanon	0.803	High human development
84	Armenia	0.798	Medium human development
129	South Africa	0.683	Medium human development
158	Nigeria	0.511	Medium human development
159	Togo	0.499	Low human development
171	Ethiopia	0.414	Low human development
182	Niger	0.340	Low human development

**Source:** United Nations Human Development Report 2009, <http://hdr.undp.org>

**Table 1.2** HDI Information - 2007

We can see that in 2007 Norway was the most “developed” country according to the Human Development Index. The line between “very high human development” and “high human development” separates Malta from Bahrain, the line between “high human development” and “medium human development” separates Lebanon and Armenia and the line between “medium human development” and “low human development” separates Nigeria and Togo. However, it should be noted that the lines are arbitrary and do not mean that there is necessarily a noticeable difference between the countries on either side. Niger had the lowest HDI value in 2007. When examining countries it might be just as significant to examine the changes in the HDI over time.

The meaning and measurement of economic development are both very important issues for students of economics. The measurement of economic growth, which is simply the change in national income (or change in GDP), is not in any way a sufficient measurement of economic development since economic development is a much broader concept. Even within wealthier, high income countries, we must not assume that all citizens enjoy the same benefits from the high levels of income. Some citizens may experience lower levels of economic development. High levels of economic growth do not ensure that increased equity is achieved within a country. We come back to the important themes of economic development and economic equity throughout the course.

## Student workpoint 1.2

### An investigation

- 1 Go to the website <http://hdr.undp.org> and find the HDI value for your own country.
- 2 Look at the countries that are classed as having low human development and identify which continents they come from.
- 3 Identify any pattern in 2.

## Student workpoint 1.3

### Be an inquirer – conduct research

Using information from the Human Development Report, or any other sources, try to find information/data concerning different levels of economic development within a country of your choice.

This could involve statistical data measuring any of the factors which contribute to economic development such as income levels, education achievement levels, life expectancy, infant mortality, access to health care, freedom of speech, gender equality, and any measures of access to enhanced opportunities.



## Sustainable development

The World Commission on Environment and Development was formed by the United Nations in 1983, and in 1987 the report, *Our Common Future*, was published. The Commission was of the opinion that economic growth cannot be sustained into the future if environmental degradation is taking place and non-renewable resources are being used up at too fast a rate. The term “sustainable development” was introduced and defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. In economics we learn about the advantages of economic growth, and may even tend to assume that all countries seek to achieve high rates of economic growth. However, it becomes increasingly vital to appreciate the possible negative consequences of economic growth in terms of the effects on the environment and the ability of future generations to meet their needs. When we examine how resources should be allocated we must consider how such resource allocations affect future generations. Thus, another central theme for students of economics is how resources may be allocated, also giving attention to the desirability of sustainability.

### Student workpoint 1.4

#### Be caring about the world's future

- 1 Explain why the debate about global warming suggests that current economic growth is not sustainable.
- 2 Can you think of any other threats to sustainable development?

#### Dr Gro Harlem Brundtland (1939–present)

Gro Brundtland was born in Oslo, Norway in 1939. At the age of 7, she followed in the shoes of her political activist father by becoming enrolled as a member of the Norwegian Labour Movement and she has been a member ever since. When she was 10 years old, her family moved to New York where her father had been granted a Rockefeller Scholarship. It was there that she learned English. Her commitment to social issues and the fact that she was always encouraged to be independent and outspoken meant that she had a mature sense of global awareness at a young age.

Brundtland received a medical degree in Oslo in 1963, when she was 24. After receiving a Master's degree at Harvard, she returned to Oslo to work in public health. This, along with her active role in promoting women's rights, led her into politics and she became environment minister in 1975. An oil spill caused by an explosion on an oil-drilling platform in the North Sea was her first big test as environment minister and she became a strong advocate of measures to prevent future environmental disasters.

She was elected as the first woman Prime Minister of Norway in 1981. In 1983, she was asked by the Secretary General of the United Nations to chair the World Commission on Environment and Development, whose mandate was to evaluate the planet's critical

environmental and developmental problems and to provide possible solutions. To staff this commission, Brundtland selected 21 representatives from around the world, ensuring that half of the representatives came from developing nations.

The Brundtland Commission released its report, *Our Common Future*, in April 1987. It was in this widely-distributed book that the concept of “sustainable development” was identified and promoted. The recommendations of the commission led to the Earth Summit in Rio de Janeiro in 1992, attended by almost 200 world leaders.

In 1986, Brundtland was elected as Prime Minister of Norway once again, and served until 1989. She was re-elected in 1990 for the next six-year term. In 1998, she was appointed as Director General of the World Health Organization.

Dr Brundtland was trained as a scientist and physician. She has worked as a politician and a diplomat. As an advocate for the environment, sustainability, women's rights, poverty alleviation, and public health, she is a role model for students in all disciplines.





### Student workpoint 1.5

#### An investigation

In this chapter you have read about different ways of allocating resources and have been introduced to the concepts of economic growth and economic development. All of these factors result in the grouping of the world's economies into different categories.

In the past, we simply used the terms First World, Second World, and Third World, but today there are many different names and categories.

- 1 The **UNDP** groups countries according to levels of development as shown by the HDI. List the groups, name five countries in each category and note the HDI for each.
- 2 The **World Bank** groups countries according to levels of national income. List the groups, name five countries in each category and note the national income for each.
- 3 Find out how many countries are in the **Organisation for Economic Cooperation and Development** (OECD) and name five of these.
- 4 Another group of economies is a group of countries known as **emerging markets**. Name five countries in this category and explain what is meant by the term "emerging markets".

Make sure that you can locate each of the countries you list in this exercise on a world map! Better yet, get a blank world map and label each one.

#### Sources:

- [www.undp.org](http://www.undp.org)
- [www.oecd.org](http://www.oecd.org)
- [www.worldbank.org](http://www.worldbank.org)
- [www.economist.com](http://www.economist.com)

### You be the journalist

An international economics magazine has decided to include a new feature called The Student Corner. Each month it will include an article that presents economic analysis of a current issue to students, and they have hired you to be the journalist!

Each time you see the icon shown here, write an article using the information given. Each article should be between 250 and 350 words and should include definitions of key terms and at least one diagram. Wherever possible consider all possible consequences of the issue, and any effect on possible stakeholders. Try to be creative—even inventive! You can make up interviews. You don't have to do it entirely on your own, however, as the headline and perhaps a few tips will be given.



## You be the journalist

**Headline:** Hurricane Olesya devastates local economy

**Economics concept:** Production possibilities curve + factors of production

**Diagram:** PPC curve

Here is an example

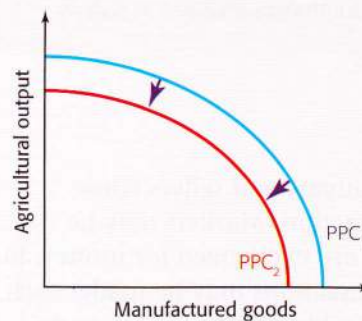
### Hurricane Olesya devastates local economy

IN NOVEMBER last year, powerful hurricane Olesya swept through the province of Kahlua, devastating factories and farms. The concept of the production possibilities curve can be applied to this situation.

A production possibilities curve (PPC) is a curve that shows the maximum combinations of goods and services that can be produced by an economy in a given period, if all the resources are being used fully and efficiently and the state of technology is fixed. The diagram shows the PPC for the province of Kahlua before and after the hurricane. Before the hurricane, Kahlua had the possibility of producing anywhere on  $PPC_1$ . In reality, it is unlikely to have actually been producing

on the curve, because there are always some resources that are not in use.

The hurricane destroyed some of the province's factors of production, thereby reducing the



potential output of Kahlua and shifting the curve inwards to  $PPC_2$ . In this case, the factor of production called land is no

longer able to produce as much agricultural output as it could before because of the damage done to the fields. Sadly, this means that there will be none of those famous Kahlua oranges this summer. Damage to factories means that Kahlua has lost some of its factor of production known as capital. This means that Kahlua can currently produce fewer manufactured goods.

Although many people were displaced, fortunately there was no loss of lives and the labour force is keen to get things going. According to local entrepreneurs business will be back to normal by this time next year!  
(260 words)